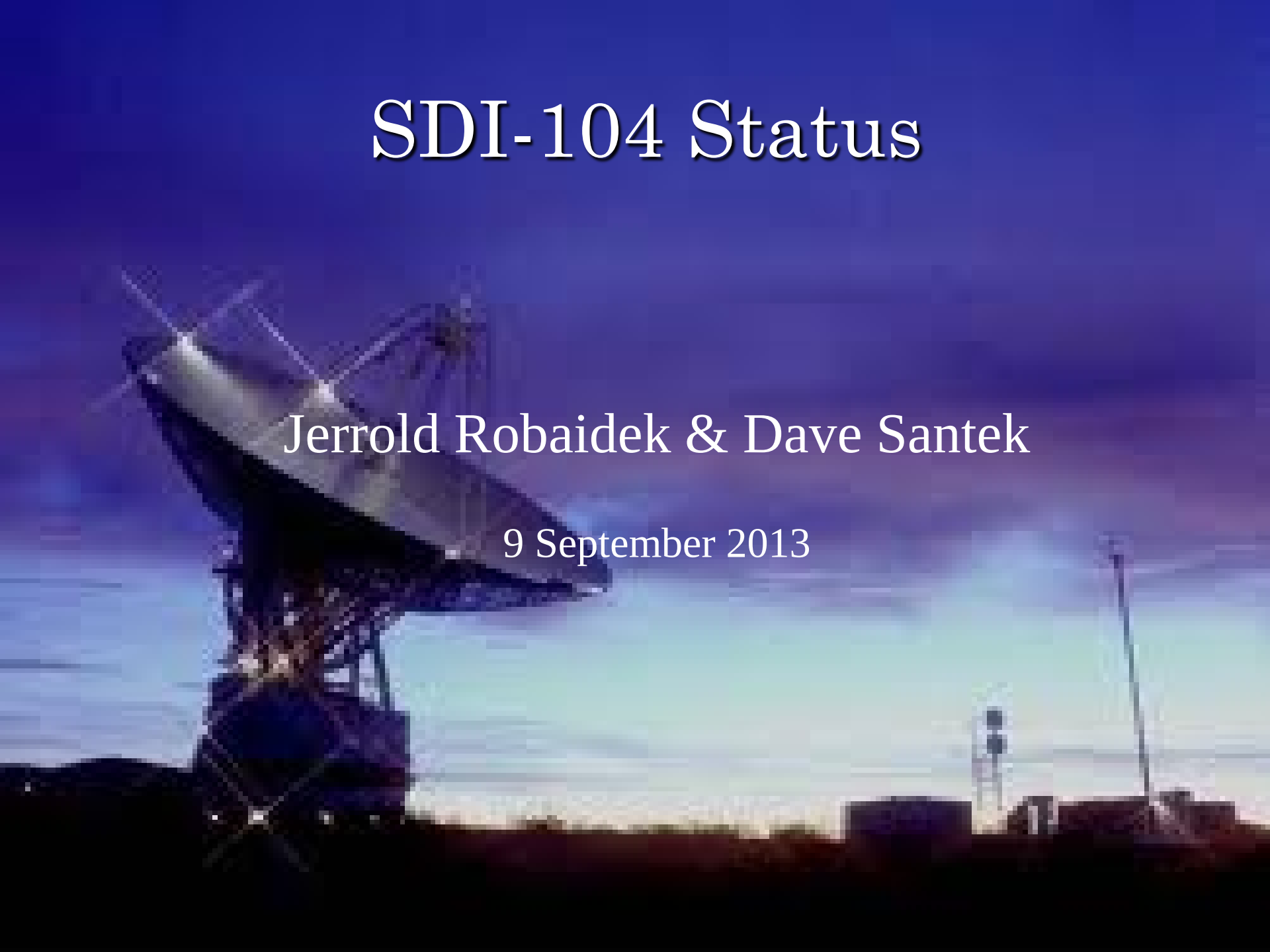
# SDI-104 Status



Jerrold Robaidek & Dave Santek

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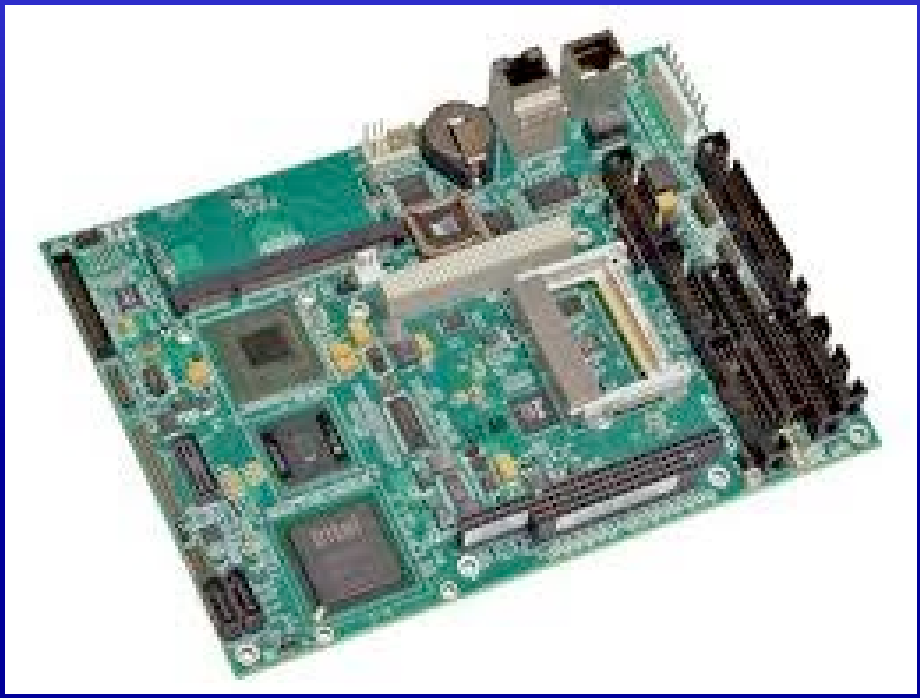
# Overview

- SDI Design
  - Hardware configuration
  - Software configuration
- Satellites signals and SDI-104 availability

# Hardware Configuration

- PC/104-Plus
- LittleBoard 735
- 1 GHz CPU
- Disk: 160 Gbyte IDE
- Boot from compact flash
- Ethernet: Up to 1G/s
- Connectors for monitor and keyboard
- Mounted in 2U rack box



# Hardware Configuration

Data rates tested up to 40 Mbits/s

- Connectors:
  - D15P
  - BNC
- Configuration:
  - Single ended (TTL)
  - RS422 (differential)
- Data types
  - NRZ-L, NRZ-M, NRZ-S
  - Jumper configurable

# Software Configuration

- Knoppix 6.7.1 (Linux 3.0.41)
  - Up-to-date security
  - Compatible with old binaries
  - Upgrade to Knoppix for older SDI-104 systems running DSL planned (date TBD)
- Can be configured as a standalone ingestor/server, or write data to an external disk (via NFS, for example)

# Event Notification

- Notifications are dependent on signal type:
  - Image start (not for POES)
  - Image end (not for GVAR Imager)
- Three types of notifications:
  - Send an email
  - Write notification to a file (log messages)
  - Run a program or script

# SDI-104 Status for Current Satellites

- GOES: up-to-date for all satellites
  - Inq. 15153: Increase tracking delay to account for long delays from sounder during sub-CONUS sectors
  - Inq. 15273: Fixed problem with SIZE=SAME or ALL. There were coding errors that were manifested depending on the compiler

# SDI-104 Status for Current Satellites

- MTSAT: up-to-date for both satellites
  - May want to add swap space if running DSL (noisy data)
- POES AVHRR:
  - Up-to-date for all satellites
  - Unable to test direct reception, although a system is running at NWS Honolulu
- FY-2: Chinese geostationary
  - Ingestor in use in Japan

# SDI-104 Status for Current Satellites

- MSG:
  - Not available
- Metop
  - Not available*
- Suomi NPP
  - Not available*

* See next slide

# SDI-104 Polar Reception

- Receive data from many polar satellites: Suomi NPP, NOAA POES, Aqua, Metop, FY-3, Terra, Meteor-M
- No ADDE servers nor McIDAS dependency
- Process to Level 1b and products on separate workstation: CSPP and AAPP
- Development expected to begin soon

# New Geostationary Satellites


- COMS: S. Korean satellite
  - Subpoint: 128º East
  - There are no plans for broadcast to US, therefore no SDI-104 anticipated
  - SSEC Data Center receiving real-time data via Internet from KMA

# Future Geostationary Satellites

- Himawari 8: Japan
  - Follow-on to MTSAT
  - AHI instrument, similar to ABI
  - Internet-only distribution is expected

# Future Geostationary Satellites

- GOES-R:
  - Industry-standard delivery (CCSDS)
  - SDI-104 is designed and tested for data rates up to 40 Mbits/s
  - GOES-R Rebroadcast (GRB) simulator expected by the end of the year

# SDI Sunset

- Original SSEC Desktop ingestor **will be sunset on 31 December 2013**
  - We are not able to provide nor recommend hardware components if these would fail
  - The operating system used is an unsupported version of Solaris, which has been lacking security updates for several years.

# SDI Sunset

- Upgrade Option 1
  - Upgrade to a SDI-104 during 2013: (recommended)
    - Cost is the back-up price: $15,000
    - Support continues at $8,340/year

# SDI Sunset

- Upgrade Option 2
  - Upgrade to a SDI-104 after 2013:
    - Cost is the price of a new SDI-104: $20,000
    - Support starts at $8,340/year
    - http://www.ssec.wisc.edu/mcidas/news/sdi_sunset.html

# End